REMARKS

In an Office Action dated 22 September 2010, claims 1, 2, and 4-36 are rejected on prior art grounds and claims 3 and 37 are objected to for an informality. In reply, Applicant herein amends claims 1, 2, 5, 7-11, 14-25, 27-30, 32-36, cancels claims 3, 6, and 37, and submits the present remarks which, taken in combination, address and overcome all of the outstanding objections and rejections. The various issues raised by the Examiner in the Office Action are now addressed in turn.

Claims 3 and 37 are objected to for alleged improper dependency. These claims are herein cancelled, thus the outstanding objection is rendered moot; reconsideration and withdrawal thereof is respectfully requested.

Claims 1, 2, and 4-36 are rejected under 35 U.S.C. 101 as allegedly being direct to non-statutory subject matter. With respect to claims 1, 2, and 4-25, the Examiner asserts that "the claimed method is neither tied to a particular machine or apparatus that impose meaningful limits on the claim's scope to impart patent-eligibility nor transforms a particular article into a different state or thing." Office Action, page 2. In reply, independent claim 1 is herein revised to recite a hardware implemented filtering method comprising, inter alia, "establishing a representation of a derivative of at least a part of a time-quantized pulse width modulated input signal, and establishing at least one sample of a time- and amplitude-quantized pulse code modulated output signal by performing filtering..." That is, the claim is revised herein to specify that a pulse width modulated input signal is transformed by the recited method into a pulse code modulated output signal. The recited transformation is particular and meaningfully limits the execution of the recited method steps. Moreover, the signal being transformed is particular and it undergoes a change in state so as to provide a different function or use.

Accordingly, claim 1 is patent eligible under Section 101. See, e.g., *Bilski v. Kappos*, 561 U.S. ___ (2010). Claims 2, 4, 5, and 7-34 variously depend from claim 1 and

are thus correspondingly patent eligible. Claim 6 is herein cancelled and thus the rejection thereof is rendered moot.

Claim 35 is herein amended into independent form and, similar to claim 1, recites a method which involves the transformation of a pulse width modulated input signal into a pulse code modulated output signal. Thus, for at least the reasons set forth above concerning claim1, Applicant's amended claim 35 is patent eligible.

Claim 36 is herein amended to positively recite a "filter arrangement" comprising "a differentiator" and "a filtering unit", etc. Clearly, claim 36 now recites a particular machine with positively recited elements that meaningfully limit the claim. Thus, the claim is patent eligible under Section 101.

For at least the reasons specified above, claims 1, 2, 4, and 5-36 satisfy all of the provisions of 35 U.S.C. 101; reconsideration and withdrawal of the relevant Section 101 rejections is respectfully requested.

Claims 1, 2, 4, 7-19, 22-26, 28, 29, 31, 32, 35, and 36 are rejected under 35 U.S.C. 102(b) as allegedly lacking novelty in view of U.S. 5,838,600 to McNeely. In reply, Applicant submits that the rejected claims, as amended and presented herein, include limitations not taught or even suggested by McNeely. Thus, the claims are novel and the outstanding Section 102 rejection may not be maintained.

Turning first to independent claim 1, a hardware implemented filtering method is recited comprising, inter alia, "establishing a representation of a derivative of at least a part of a time-quantized pulse width modulated input signal, and establishing at least one sample of a time- and amplitude-quantized pulse code modulated output signal by performing filtering on the basis of at least a part of a filter representation and said representation of the derivative of at least a part of said input signal". McNeely does not provide this limitation of Applicant's claim 1. That is, McNeely does not teach or even suggest a method for transforming a pulse width modulated input signal into a pulse code modulated output signal, as recited in amended clam 1. Instead, McNeely simply discloses

a filtering circuit which applies certain delays, subtractions, multiplications, etc., to an input signal. McNeely is not concerned whatsoever with the transformation of a pulse width modulated input signal into a pulse code modulated output signal, as recited in Applicant's claim 1.

Additionally, amended claim 1 recites that the "filtering is arranged to omit arithmetic operations involving such samples of said representation of the derivative of at least a part of said input signal that are derived from identically valued contiguous samples of said time-quantized input signal." This limitation of claim 1 is wholly omitted form the McNeely disclosure.

Accordingly, for at least these reasons, claim 1 is novel over McNeely. Claims 2, 4, 7-19, 22-26, 28, 29, 31, and 32 variously depend from claim 1 and are thus correspondingly novel.

Claim 35 is herein amended into independent form and includes limitations similar to those of clam 1 discussed above. Thus, for at least the reasons expressed concerning claim 1, Applicant submits that claim 35 is novel over McNeely.

Claim 36 is herein amended so as to be direct toward transformation of a pulse width modulated input signal into a pulse code modulated output signal, similar to claim 1. Moreover, claim 36 requires omission of arithmetic operations, as in claim 1. Thus, for at least the reasons expressed concerning claim 1, Applicant submits that claim 36 is novel over McNeely.

All Section 102 novelty rejections have been addressed and are herein overcome; reconsideration and withdrawal thereof is respectfully requested.

Notably, independent claim 1 is not further rejected nor objected to and is thus allowable to Applicant.

Claims 5, 6, 20, 21, 27, and 30 are rejected under 35 U.S.C. 103(a) as allegedly being obvious over McNeely. Claim 6 is herein cancelled and thus the rejection thereof is

rendered moot. The remaining claims variously depend from allowable claim 1 and are thus correspondingly novel, non-obvious, and hence allowable; reconsideration and withdrawal of the relevant Section 103 rejections is respectfully requested.

Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as allegedly being obvious over McNeely as combined with U.S. 5,511,015 to Flockencier. These claims, however, variously depend from allowable claim 1 and are thus correspondingly novel, non-obvious, and hence allowable; reconsideration and withdrawal of the relevant Section 103 rejections is respectfully requested. Moreover, Applicant notes that Flockencier does not remedy the deficiencies of McNeely discussed herein above.

All rejections under Sections 101, 102, and 103 are herein addressed and traversed or otherwise overcome. Pending claims 1, 2, and 4-36 are allowable to Applicant; prompt issuance of a Notice of Allowance is requested.

Applicant hereby petitions under 37 C.F.R. 1.136 for any extension of time necessary for entry and consideration of the present submission.

Please charge any fees due with respect to this submission, or otherwise, to Deposit Account No. 06-1130 maintained by the applicant's attorneys.

The office is invited to contact Applicant's attorneys at below listed telephone number regarding the present submission or otherwise concerning this application for patent.

Respectfully Submitted,

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